

THE CORE

What is it, how does it work and why is it important to connect to your core?

What is the core?

The core consists of deep muscles located in the trunk that work together to give the spine and pelvis stability. These muscles can control excessive and potentially harmful movements between the vertebrae and in the pelvic joints. In addition, the bladder is supported by fascia and ligaments that connect to the deepest muscles of the core and therefore restoring this function is critical to the long term health of the bladder.

How does the core work?

In the non-injured, non-painful spine, the core muscles will turn on before your body performs any movement. For example, before you raise your arm to open a cupboard, the core muscles engage to stabilize the spine and pelvis. Thus, the core muscles create a stable base for free flowing and efficient movement of the whole body.

Why is it important to “connect” to your core?

Several things can affect the proper functioning of your core. These include poor posture, unbalanced exercise/strength training programs, pain, injury and surgery. Research shows that in people with low back pain, the core muscles can turn on too late or not at all. It is as if the brain gets disconnected from the core. This means that the spine is less protected during all positions and movements – resulting in a much higher risk of re-injury and return of low back pain. Research has also shown that the core muscles do not automatically start working properly after your low back pain goes away – your brain can stay “disconnected” even if you feel better. This is why it is important to perform neuromuscular isolation exercises to re-establish proper core function. Your core can be tested to determine if it is functioning correctly.

What are some common mistakes when exercising the core?

Many people over train the outer and upper abdominals and spend little if any time working on the deep and lower abdominals. The problem with this simply come back to the function of the abdominal muscles. The functions of the deep abdominals (transverses abdominals) are expiration or air, static and dynamic stability. Proper breathing mechanics are vital for optimal physiology and optimal stability is essential for good posture as well as functional movement. The function of the outer abdominals (Rectus Abdominus) is trunk flexion and some gross stability. Therefore, over training of the outer and upper abdominals can contribute to poor breathing mechanics, forward head posture, back, neck and shoulder pain and dysfunction.

References

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